INTO THE RIDE #106

Three Slants on Comfortable Cycling

by Randy Schlitter

Since the introduction of our CrankForward line of bikes in 2004, we have evolved the line into three distinct geometries: Fusion, Dynamik, and Alterra. Although the variations in geometry can appear subtle, each one offers a different flavor of CF riding and versatility.

Fusion Geometry Frames:

- Fusion
- Fusion ST
- Cruz

The Fusion, Fusion ST, and the curvy-tube Cruz all feature our most laid back geometry. The photo above shows the different slants of the seat tubes. The **Fusion** geometry features the lowest seat height, most forward crank position, and most upright rider position. The Fusion has been a best seller from the start; the low seat height could be part of the reason. Rider's love how easy it is to stand flatted footed when stopped. Our entire CF line feature flat-footed seating, but by far the Fusion geometry is the easiest.

The head tube angle is relaxed and the fork rake is "chopper" like. The handling is familiar, and most riders jump on and go with little or no learning curve. It has always been that sort of bike - ready to show a new rider what a fun bike it can be.

The **Fusion ST** (ST stands for step thru) has become the bike of choice for those seeking an easy-mounting bike. And it matters little if the rider is male or female. Fusion is a fitting; it blends the

world of recumbent with upright. And from the customer feedback many Fusion and Cruz owners are former bent riders, or have added the intriguing little bike to their stable of mounts.

Although not intended to trek across the country, many owners have placed the humble Fusion into touring service. I know of one case where a client would fly to the states, buy a Fusion, ride it from west to east, sell it, then jet back home to Australia.

Sitting on a Fusion-style frame the torso is vertical with the neck and spine (also in a great position to reduce stress and pain). The hands are placed on the bars with no pressure, creating relaxing pain-free riding. The only real limitation is not being able to stand and ride. However, you can stand to cool your shorts! Despite this the Fusion is an aggressive climber. The seating position aligns well to apply more than enough force against the pedals. In fact you can exceed your own body weight in pressure against the pedals. This is due to the crank and handle bar positions. Riders who want the optimum climb power should adjust the handlebars to about 1" to 2" above the knee at top of stroke. This allows maximum effort if you pull on the bars. You will also get a good core work out and can actually flatten your tummy with enough riding.

Fusion frames have come in steel and aluminum. Our current offerings are all of 7005 aluminum alloy. Most of the Fusion style frames come from our Taiwan supplier; however if we get in a pinch we do build the standard Fusion and Fusion ST in our Hays plant.

The Fusion was the beginning of our CF series. I remember the fun of dialing in the frame. We must have made about 3 to 4 different angle changes on several frames to get the final geometry. In a way it was a hard-won battle, which involved lots of test rides by several riders, from our staff, beta testers, and demos at shows. The constant that became apparent throughout the development was that this bike does live up to its name, bringing two worlds together: recumbents and diamond frames.

Dynamik Geometry Frames:

- Dynamik
- Dynamik 700*
- Dynamik Pro*
- Street
- Citi
- Sequoia
- Zenetik
- HammerTruck
- Dynamik Duo

* Recent offerings, not in current model line up

This is a large grouping of frames allowing a full spectrum of riding styles. This geometry has a slightly steeper seat tube, shorter wheelbase, and a head tube angle that allows commonly available forks. This allowed stand-riding, not as natural as a regular DF, but you can stand-ride these frames. How this plays into making a choice can depend on the rider. Climbing is really good sitting or standing. The ability to stand and ride offers the full scope of body English that some people miss when riding recumbents. I have done repeated climb tests with my personal Zenetik Pro, and the bottom line is this geometry climbs well either standing or sitting. The issue with stand-riding on the Dynamik geometry is you have to be aggressive when you leave the saddle. You have to move your body a good 12" forward; some are timid to even try this, and thus don't bother. It is no great loss, as the bike still performs. With practice, stand-riding a Dynamik frame becomes natural.

Hammertruck

One of my favorite bikes is the **HammerTruck**. Mine is set up with the B-37 bars and a curved riser, placed forward. This allows you to get well to the front and over the pedals. The bars sweep back; this places my hands perfectly to really pull hard in a climb. I just love this leverage, and when hauling a heavy load this really proves out. The effort to learn stand-riding is well worth it, and the secret is getting your body forward.

The shorter wheelbase makes the bike a bit more compact. Add the stand-ride capability, shock fork, and fat tires, and you have a bike worthy of trail riding. The lower seat height gives a nice trail-hugging feel. Our test rides by both experienced MTB riders and our staff have shown the Dynamik geometry to be trail-worthy for moderate trails. The crank clearance can be limiting if you want to really get on technical paths. If that is your thing, skip to the Alterra.

With so many forms, the Dynamik geometry has been well received. From commuter, cruisers, MTB, road, and work bikes, this frame geometry is providing a riding mount of great comfort, performance and utility. These bikes tend to be a bit faster due to less air drag. And they tend to have a bit tighter feel in handling, because of the steeper head tube, less raked fork, and shorter wheelbase. The seating position is still good for stress and pain relief on the spine, neck, and hands. The torso is upright for good traffic surveillance, yet you can duck under the wind and ride. This gains about 2 MPH in cruise speed.

Dynamik Duo

Also in the family of Dynamik geometry is our **Dynamik Duo**, so far the only tandem CF we build. It has been a bike that invites people to ride tandem that may have not otherwise. The relaxed geometry allows flat-footed stance and easy on-and-off mounting. The bike is very stable and out-performs similar cruiser-styled tandems.

Being able to adapt off-the-shelf forks has allowed many exciting versions of the bike and freedom with frame set build-ups. We have seen quite the parade of custom-built Dynamik-style bikes. Dynamik geometry bikes are well loved by their riders because of the classy, styling, comfort, performance, and wide range of bike styles. From Cruisers, commuters, MTB, to road, this geometry is the Swiss Army knife of our CF line.

The Dynamik rider is looking for the blend of comfort and performance close to the standard DF, a bike that allows even more body English over the Fusion type, and the ability to stand ride. When we built this bike we also had tried every tweak on both sides of the final geometry, and one tweak became the next part of the story... Until next time, ride safe and stay into the ride!

INTO THE RIDE